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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/812,124	03/19/2001	Stefan Pudas	040020-288	7591

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EXAMINER	
TON, ANTHONY T	

ART UNIT	PAPER NUMBER
2661	

DATE MAILED: 07/29/2004

8

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/812,124	PUDAS ET AL.	
	Examiner	Art Unit	
	Anthony T Ton	2661	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *19 March 2001*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-11* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-11* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *19 March 2001* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date 4.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Objections

1. **Claim 5** is objected to because of the following informalities:

Term "The method of **step 4**" in line 1 is improper. Examiner thinks Applicant meant that "The method of claim 4"; it must be a typo.

Examiner suggests changing this term to "The method of **claim 4**".

Also, note that in this Office Action, Examiner considered the **claim 5** is a dependent of the **claim 4.**

Appropriate correction is required.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. **Claims 1, 2, 6 and 7** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Subbiah** (US Patent No. **6,717,948**) in view of **Caves et al.** (US Patent No. **6,665,300**), hereinafter referred to as Caves.

a) In Regarding to Claim 1: **Subbiah disclosed** a method for optimizing network resources in an ATM network comprising the steps of:

(b) if a CID is available, then determining if bandwidth is available on the direct VCC *(see Fig.2: CID field 202, and col.3 lines 13-23)*; and

(c) if bandwidth is available on the direct VCC, then setting up an AAL2 connection on the direct VCC *(see Fig.7: step 740, admit a data call).*

Subbiah failed to clearly disclose the step (a) of the method: determining whether a channel identifier ("CID") is available on a direct virtual connection channel ("VCC") in response to a connection request.

However, **Subbiah inherently disclosed** such determining whether a CID is available on a direct VCC in response to a connection request because Subbiah disclosed a packet AAL2 formats 200, in which, a packet header having a CID 202 that is 8 bits long and identifies the Logical Link Control *(hence, virtual connection channel)* for the packet *(see col.5 line 26-29).*

Caves clearly disclosed such determining whether a CID is available on a direct VCC in response to a connection request *(see Fig.3: step of receive connection request).*

Therefore, at the time of the invention, it would be obvious to a person of ordinary skill in the art to combine such determining whether a CID is available on a direct VCC in response to a connection request, as taught by Caves with Subbiah, so that a VCC for an end user can be setup appropriately. The motivation for doing so would have been to avoid collisions caused by simultaneous allocation of the same channel identifier to two AAL2 connections over an ATM VCC between a first and second nodes in asynchronous networks. Thus, it would have been obvious to combine Caves and Subbiah in the invention as specified in the claim.

b) In Regarding to Claim 2: **Subbiah further disclosed** the method of claim 1 further comprising the step of: (b1) setting up a new direct VCC to a destination if bandwidth is not available on the direct VCC *(see col.7 lines 49-51 and col.8 lines 9-12).*

c) In Regarding to Claims 6 and 7: the claimed subject matters of a communication network of these claims are the same as that of the method in claims 1 and 2 respectively, **except for** the communication network comprising: a plurality of ATM nodes.

However, Subbiah further disclosed such a plurality of ATM nodes *(see Fig.1: nodes 110-116 and Figs.3 and 6: n speech users and n data users).*

4. **Claims 3-5 and 8-11** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Subbiah** (US Patent No. **6,717,948**) in view of **Caves et al.** (US Patent No. **6,665,300**) as applied to claims 1, 2, 6 and 7 above, and further in view of the **Admitted Prior Art** as shown in **Figs.1** and **2**, hereinafter referred to as **the Admitted Prior Art**.

a) In Regarding to Claim 3: **Subbiah disclosed** a method for optimizing network resources in an ATM network, wherein the ATM network is formed from a plurality of interconnected network nodes, the method comprising the steps of:

(a) determining whether a channel identifier ("CID") is available on a virtual connection channel ("VCC") *(as the step (a) of the claim 1 that was described above);*

(c) if the VCC has an available CID, then determining if bandwidth is available on the VCC *(as the step (b) of the claim 1 that was described above)*;

(d) if the VCC does not have bandwidth available, then modifying the bandwidth on the VCC *(see col.7 lines 13-42: The inductive learning 712 is an iterative process by the knowledge-based connection apparatus 700 updates its prior knowledge 720, i.e., its knowledge of traffic parameters in an AAL2 connection ... resource allocated for speech users, for example, Bandwidth, QoS etc; and see Fig.7: a loop from step 730 to steps 720 and 712 (hence the*

Bandwidth of the VCC is modified, for example, voice or video data in the AAL2 is compressed); and

(e) if bandwidth is available on the VCC, then setting up an AAL2 connection on the VCC *(as the step (c) of the claim 1 described above).*

Subbiah failed to explicitly disclose the step (b) of the method: if the VCC does not have an available CID, then checking all existing VCCs for an available CID; and wherein the **VCC** is an **indirect VCC**.

Caves clearly disclosed such if the VCC does not have an available CID, then checking all existing VCCs for an available CID *(see Fig.3: step "CID Free?").*

At the time of the invention, it would be obvious to a person of ordinary skill in the art to combine such if the VCC does not have an available CID, then checking all existing VCCs for an available CID, as taught by Caves with Subbiah, so that any free channel identifier in an ATM network can be assigned to a VCC. The motivation for doing so would have been to avoid collisions caused by simultaneous allocation of the same channel identifier to two AAL2 connections over an ATM VCC between a first and second nodes in asynchronous networks. Therefore, it would have been obvious to combine Caves and Subbiah in the invention as specified in the claim; and

The Admitted Prior Art disclosed such an **indirect VCC** *(see Fig.1: Logical AAL2 connections 121 – 124).*

At the time of the invention, it would be obvious to a person of ordinary skill in the art to combine such an indirect VCC, as taught by the Admitted Prior Art with Subbiah, so that any available VCC can be established between source and destination in an ATM network. The

motivation for doing so would have been to provide an appropriate connection setup between two end users via an AAL2 switch in ATM networks. Therefore, it would have been obvious to combine the Admitted Prior Art and Subbiah in the invention as specified in the claim.

b) In Regarding to Claim 4: **Subbiah further disclosed** the method of claim 3 further comprising the steps of: (d1) setting up at least one new indirect VCC to a destination if bandwidth is not available on any indirect VCCs *(see col.7 lines 49-51 and col.8 lines 9-12).*

c) In Regarding to Claim 5: **Subbiah further disclosed** a method of claim 4, wherein the at least one new indirect VCC is setup according to a routing table *(see col.1 lines 40-60: hop-by-hop routing mechanism between AAL2 end systems (hence, it is inherently there is a routing table existed in the Subbiah's)).*

d) In Regarding to Claims 8 and 9: the claimed subject matters of a communication network of these claims are the same as that of the method in claims 3 and 4 respectively, **except for** the communication network comprising: a plurality of ATM nodes; and a plurality of indirect virtual connection channels ("VCC"), wherein each indirect VCC connects one of the plurality of ATM nodes to a different one of the plurality of ATM nodes.

However, Subbiah further disclosed such a plurality of ATM nodes *(see Fig.1: nodes 110-116 and Figs.3 and 6: n speech users and n data users);* and

The Admitted Prior disclosed such a plurality of indirect VCC, wherein each indirect VCC connects one of the plurality of ATM nodes to a different one of the plurality of ATM nodes *(see Fig.1: ATM nodes 101-104, and VCCs 121-124).*

At the time of the invention, it would be obvious to a person of ordinary skill in the art to combine such a plurality of indirect VCC and ATM nodes, as taught by the Admitted Prior Art

with Subbiah, so that any available VCC can be established between source and destination in an ATM network. The motivation for doing so would have been to provide an appropriate connection setup between two end users via an AAL2 switch in ATM networks in a purpose of avoiding collision and make Subbiah more reliable. Therefore, it would have been obvious to combine the Admitted Prior Art and Subbiah in the invention as specified in the claim.

e) In Regarding to Claims 10 and 11: all claimed subject matters of these claims have been covered by the claims 8 and 9 respectively, in an ATM node as taught by these claims. Therefore, the rejection to the claims 8 and 9 would also apply to these claims 10 and 11.

Examiner Information

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anthony T Ton whose telephone number is 703-305-8956. The examiner can normally be reached on M-F: 8:00 am - 4:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Douglas W Olms can be reached on 703-305-4703. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

ATT
7/13/04

Phirin Sam